Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

curves agreeing with any observed distribution of varying individuals. To solve some of the equations, logarithms, trigonometric functions and gamma functions have to be employed, and it is too much to hope that a large proportion of naturalists can use even these simple methods. Yet naturalists who desire to reach best results from their data must get out their algebras, trigonometries, and logarithmic tables, and brush up on these subjects. Formulas are used very freely, which is no doubt an offense to some. It should be remembered, however, that a formula is only an abbreviated statement of operations, and very useful to any one who knows how the operations indicated are performed. The author gives the various indices of variability. He objects to the use of the coefficient of variability (obtained by dividing the index of variability by the mean) and maintains that the view that we expect high indices of variability where the mean is high is untenable. As evidence for this conclusion he points to the fact that in the four numerical examples given in his paper the index of variability is inversely proportional to the mean. This is, however, absolutely no evidence against the value of the coefficient of variation, since, doubtless, the large characteristic which has a small index of variability is, in comparison with the small character having a large index, relatively even less variable than a comparison of the mere indices would indicate.

Correlation is treated of briefly, and an excellent short method of calculating the coefficient of correlation is given. The calculation of spurious correlation of indices is not given — an important omission; and little is said about multimodal curves, which are frequent in biological statistics.

A bibliography of 111 titles is given (from which Fechner's 1897 work is omitted), and tables of formulas add greatly to the usefulness of the paper.

Altogether the paper is one which every student of statistical biology — *and this ought to include every systematic worker in zoölogy and botany* — should have.

Inheritance of Acquired Qualities.[1] — Conidia of *Aspergillus niger* of common origin are reared (*A*) in Raulin solution; (*B*) in Raulin solution + 6 per cent NaCl for *one* generation; and (*C*) in Raulin solution + 6 per cent NaCl for *two* generations. Then:

---

[1] Errera, L. Hérédité d'un caractère acquis chez un champignon pluricellulaire, *Bull. Acad. Roy. de Belg.*, 1899, pp. 81–102.

I. In a Raulin solution + 18.4 per cent NaCl:
A, shows no germination;
B, slight germination;
C, general germination.

II. In a Raulin solution + 6 per cent NaCl:
A, produces spores in 5 days;
B, produces spores in 4 days;
C, produces spores in 3¾ days.

III. In a Raulin solution, without additional salts:
A, sporification in 4 days;
B, sporification in 5 days;
C, sporification in 5 days, but slight.

Spores from cultures III, *A*, *B*, and *C*, are sowed in Raulin solution + 18.4 per cent NaCl:

IV. *A′*, after 5 days, no germination;
B′, after 5 days, just visible germination;
C′, after 5 days, clearly visible germination.

Hence (I and II) the Conidia of Aspergillus become adapted to the medium in which their parent is growing, and more adapted after the second generation than after the first.

The adaptation is such that a normal solution is disadvantageous to Conidia adapted to a dense solution.

The adaptation to concentrated medium is not wholly lost after rearing in a normal medium. (IV.) There is a persistence of the adaptation, there is an inheritance of the acquired quality of resistance to concentration.

ZOÖLOGY.

Evans's Birds. — The ninth volume of *The Cambridge Natural History*, comprising the *Birds*, by A. H. Evans,[1] has just come to hand.

Ornithologists have of late years been favored with several general works on the natural history of birds, by competent authors, the main object of which has been to present the results of recent studies of the structure of the various groups composing this class. On the other hand, the usual number of "popular," often inaccurate and

---

[1] Evans, A. H. *Birds.* The Cambridge Natural History, vol. ix. London, New York, Macmillan, 1899. xvi + 635 pp., 8vo, 144 figs. + 2 polar charts.